AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1: (Previously Presented) A method of depositing a nanostructure-containing material onto a substrate, the method comprising:

(i) forming a suspension of pre-formed nanostructure-containing material in a liquid medium, the nanostructure-containing material comprising at least one of nanotubes and nanowires;

(ii) selectively adding a charger to the liquid medium;

(iii) immersing electrodes in the suspension, wherein at least one of the electrodes comprises the substrate; and

(iv) applying a direct or alternating current to the immersed electrodes thereby creating an electrical field between the electrodes;

wherein the nanostructure-containing material is caused to migrate toward, and attach to, the substrate.

2. (Previously Presented) The method of claim 1, wherein the nanostructure-containing material comprises carbon nanotubes.

3. (Currently Amended) The method of claim 2, wherein the carbon nanotubes ~~comprise at least one of boron and nitrogen~~ have a composition of $B_xC_yN_z$.

4. (Previously Presented) The method of claim 1, wherein the nanowires comprise at least one of the following: silicon, germanium, elemental metal, oxide, carbide, nitride, or chalcogenide.

Claim 5 (canceled).

6. (Original) The method of claim 1, wherein the nanostructure-containing material comprises at least one of single-walled and multi-walled carbon nanotubes.

Claim 7 (canceled).

8. (Previously Presented) The method of claim 6, wherein the at least one of single-walled and multi-walled carbon nanotubes are pre-formed by laser ablation, arc-discharge, or chemical vapor deposition.

9. (Original) The method of claim 1, wherein the pre-formed nanostructure-containing material comprises single-walled carbon nanotubes, and the method further comprises shortening the pre-formed single-walled carbon nanotubes by chemical reaction or mechanical processing prior to their introduction into the suspension.

10. (Original) The method of claim 9, wherein the method further comprises annealing the pre-formed nanotubes at 100°C - 1200°C in a vacuum prior to their introduction into the suspension.

11. (Original) The method of claim 9, wherein the length of the carbon nanotubes is in the range of 0.1-100 micrometers.

12. (Original) The method of claim 1, wherein the liquid medium comprises at least one of water, alcohol, or dimethylformamide.

13. (Original) The method of claim 1, wherein step (i) further comprises either application of ultrasonic energy or stirring thereby facilitating the formation of a stable suspension

14. (Original) The method of claim 1, wherein the charger comprises at least one of magnesium chloride, $Mg(NO_3)_2$, $La(NO_3)_3$, $Y(NO_3)_3$, $AlCl_3$, and sodium hydroxide.

15. (Original) The method of claim 14, wherein the concentration of the charger is on the order of less than 1% by weight.

16. (Original) The method of claim 1, wherein the substrate comprises an electrically conductive material.

17. (Previously Presented) The method of claim 1 wherein the liquid medium comprises alcohol, the nanostructure-containing material comprises single-walled carbon nanotubes, and step (i) further comprises forming the suspension having a concentration of 0.1-1.0 mg/mL, expressed as mg of single-walled carbon nanotubes per ml of liquid medium.

18. (Original) The method of claim 1, wherein step (iv) comprises applying direct current to the electrodes.

19. (Previously Presented) The method of claim 18, wherein the electrical field applied between the two electrodes is in the range of 0.1 - 1000V/cm and the direct current is in the range of 0.1 - 200mA/cm^2.

20. (Previously Presented) The method of claim 18, wherein step (iv) further comprises applying direct current to the electrodes for a time period of 1 second to 1 hour.

21. (Original) The method of claim 18, wherein step (iv) comprises creating an electrical field between the electrodes of at least 20V/cm in intensity.

22. (Original) The method of claim 1, further comprising the steps of:
(v) removing the electrodes from the suspension; and

(vi) annealing the coated substrate.

23. (Original) The method of claim 22, wherein step (vi) comprises a two-step anneal, comprising heating the coated substrate to a first temperature for a selected period of time, then heating the coated electrode to a second temperature for a selected period of time.

24. (Previously Presented) The method of claim 1, wherein step (i) further comprises adding additional materials into the suspension of pre-formed nanostructure-containing material.

25. (Previously Presented) The method of claim 24, wherein the additional materials comprise at least one binder material, wherein the binder is present in an amount ranging from 0.1-20 weight% of the nanostructure-containing material.

26. (Original) The method of claim 25, wherein the binder is at least one of poly(vinyl butyral-co vinyl alcohol-co-vinyl acetate) and poly(vinylidene fluoride).

27. (Original) The method of claim 24, wherein the additional materials comprise small particles of at least one of: iron; titanium; lead; tin; or cobalt; and wherein the particles have a diameter less than 1 micrometer.

28. (Original) The method of claim 1, wherein step (iii) further comprises pre-coating at least one adhesion promoting layer onto the substrate prior to coating with the nanostructure-containing materials.

29. (Original) The method of claim 28, wherein the adhesion-promoting layer comprises at least one of: iron; titanium; cobalt; nickel; tantalum; tungsten; niobium; zirconium; vanadium; chromium; and hafnium.

Claims 30-65 (canceled).

66. (Previously Presented) The method of claim 1, comprising:

providing the substrate with a first surface having a mask disposed thereon, the mask having openings through which areas of the first surface are exposed;

immersing the at least one electrode and the masked substrate in the suspension;

applying the direct or alternating current to the electrode and the masked substrate thereby creating an electrical field therebetween, the nanostructure-containing material being caused to migrate toward, and attach to, those exposed areas on the first surface of the substrate; and

removing the mask;

wherein a pattern of nanostructure-containing material is deposited onto the substrate.

67. (Original) The method of claim 66, wherein the nanostructure-containing material comprises single-walled carbon nanotubes.

68. (Original) The method of claim 66, wherein the pre-formed nanostructure-containing material comprises single-walled carbon nanotubes, and the method further comprises shortening the pre-formed single-walled carbon nanotubes by chemical reaction or mechanical processing prior to their introduction into the suspension.

69. (Original) The method of claim 66, wherein the liquid medium comprises at least one of water, alcohol, or dimethylformamide.

70. (Previously Presented) The method of claim 66, wherein the electrical field applied between the two electrodes is in the range of 0.1 - 1000V/cm and the direct current is in the range of 0.1 – 200mA/cm^2.

71. (Previously Presented) The method of claim 66, comprising:

adding additional materials into the suspension, the additional materials comprising at least one binder material, wherein the binder is present in an amount ranging from 0.1-20 weight% of the nanostructure-containing materials.

72. (Original) The method of claim 71, wherein the binder is at least one of poly(vinyl butyral-co vinyl alcohol-co-vinyl acetate) and poly(vinylidene fluoride).

73. (Original) The method of claim 71, wherein the additional materials comprise small particles of at least one of: iron; titanium; lead; tin; or cobalt; and wherein the particles have a diameter less than 1 micrometer.

74. (Previously Presented) A method of depositing a nanostructure-containing material onto a substrate, the method comprising:

forming a suspension of pre-formed nanostructure-containing material in a liquid medium, the nanostructure-containing material comprising at least one of nanotubes and nanowires;

adding small particles to the suspension to promote adhesion of the nanostructure-containing material to the substrate;

selectively adding a charger to the liquid medium;

immersing electrodes in the suspension, wherein at least one of the electrodes comprises the substrate; and

applying a direct or alternating current to the immersed electrodes thereby creating an electrical field between the electrodes;

wherein the nanostructure-containing material is caused to migrate toward, and attach to, the substrate.